Transforming the Way DoD Shares Information by Establishing Communities of Interest

An Army Officer recently observed,

"The Global Information Grid (GIG) exists to connect people with information"

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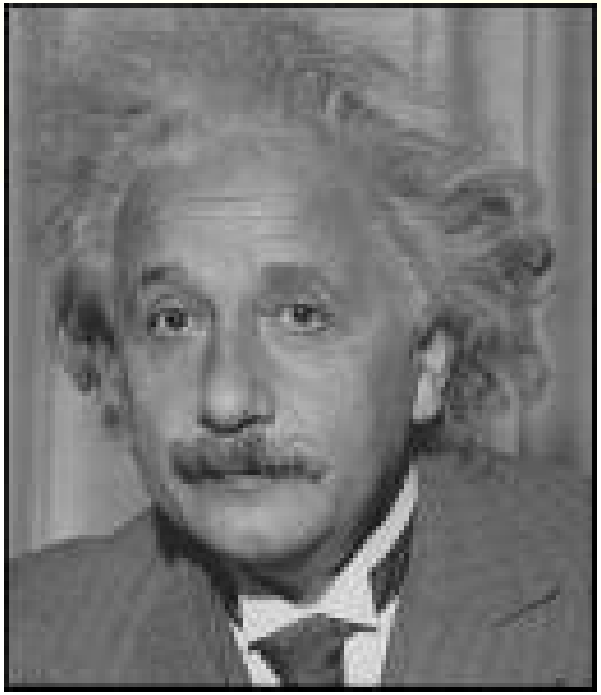
July 13, 2006



We can't solve problems by using the same kind of thinking we used when we created them.

Albert Einstein

In a Net-Centric Environment

Data is separate from Applications, AND

Data, Value-Added Services, and Applications are:

- Visible – must be discoverable by a person (or machine) who is searching for it
- Accessible – available to someone (or machine) for use
- Understandable – so that it can be acted upon

Smart Pull

Barriers to Identifying, Accessing and Understanding Data

Defining The Data Problem

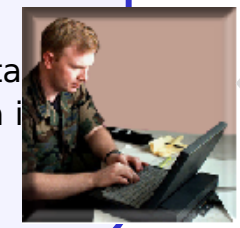
End-User Consumer

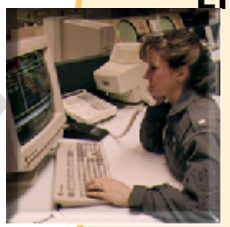
"What data exists?"

"How do I access the data

"How do I know this data i what I need?"

"How can I tell someone what data I need?"



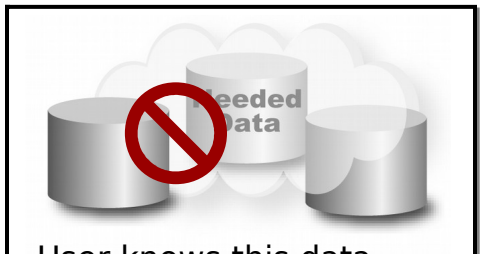


End-User Producer

"How do I share my data with others?"

"How do I describe my data so others can understand it?"

BARRIER BARRIER **BARRIER** BARRIER



Needed Data
User knows data exists and can access it but may not know how to make use of it due to **lack of under-standing** of what data represents
Organization "C"

Data Strategy Approach: **Discovery Metadata**

Data Strategy Approach: **Web Enabling, Web-service Enabling**

Data Strategy Approach: **COIs, Metadata Registry**

Where is the Requirement? What Tells Us to do It?

- The Net-Centric Data Strategy (signed May 9, 2003) is a key enabler of the Department's transformation.
- DoDD 8320.2 (signed Dec 2, 2004) directs implementation of the Net-Centric Data Strategy.
- DoD 8320.2 – G (signed April 12, 2006) provides guidance for implementing the DoD Net-Centric Data Strategy.
- The Strategy provides the foundation for managing the Department's data in a net-centric environment, including:
  - ✓ Ensuring data are **visible, accessible,** and **understandable** when needed and where needed to accelerate decision making
  - ✓ "**Tagging**" of all data (intelligence, non-intelligence, raw, and processed) with **metadata to enable discovery** by known and **unanticipated** users in the Enterprise
  - ✓ **Posting** of all data to **shared spaces for users to access** except when limited by security, policy, or regulations
  - ✓ Organizing around Communities of Interest (COIs)

Make Data Visible

DoD Discovery Metadata Specification (DDMS)

Data Catalog (historical)

DDMS Attributes	
Security	*
Title	*
Identifier	*
Creator	*
Publisher	
Contributor	
Date	
Rights	
Language	
Type	
Source	
Subject	*
Geospatial Coverage	
Temporal Coverage	
Virtual Coverage	
Description	
Format	

DDMS endorsed by Executive Order 13388
"Further Strengthening The Sharing Of Terrorism Information To Protect Americans"

* mandatory

DDMS: Leverages Industry Standard

BFT C2 COI – Content Provider Advertisement (DDMS)

advertmeta.xml

```
    <ddms:title>BFT COI</ddms:title>
  - <ddms:creator>
    - <ddms:Organization>
        <ddms:name>Army</ddms:name>
        <ddms:name>3ID</ddms:name>
      </ddms:Organization>
    </ddms:creator>
  - <ddms:subjectCoverage>
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  - <ddms:temporalCoverage>
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      </ddms:Security>
    </ddms:protectedBy>
  </meta_data>
</advertise>
```
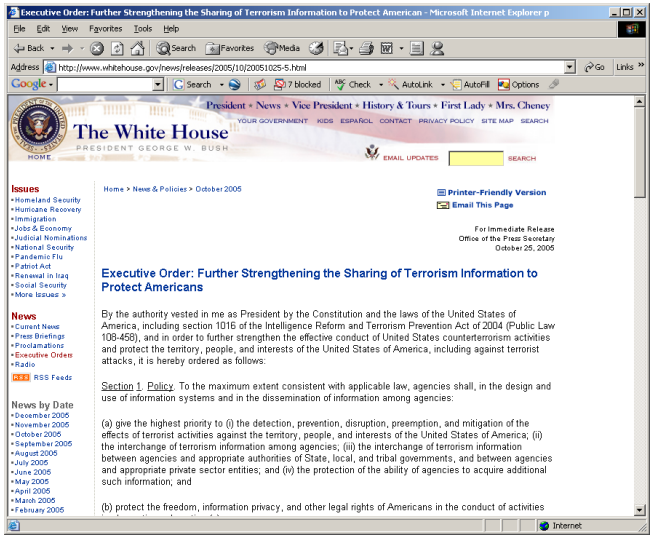

BFT Content Provider Advertisements

“ Army 3rd Infantry Division Unclassified Ground Tracks in AOI1 …”

Make Data Accessible

- Documents
  - Use common formats
  - Store in shared spaces accessible via URL
- Systems
  - For applications: Expose data via web services
    - Web services = “API for the web”
  - For end-user: Web-enable via browser or application


Executive Order: Further Strengthening the Sharing of Terrorism Information to Protect American - Microsoft Internet Explorer p
The White House
Executive Order: Further Strengthening the Sharing of Terrorism Information to Protect Americans

Enable Data To Be Understandable

One reason Government Agencies and Military Services have trouble operating jointly is that they speak different languages.

"Secure the Building!" What does it mean?

- Navy: "Turn off the lights and lock the doors."
- Army: "Surround the building, occupy, and control entry."
- Marines: "Call in close air support, assault with small team, neutralize occupants, fortify and hold at all costs until properly relieved. SEMPER FI!"

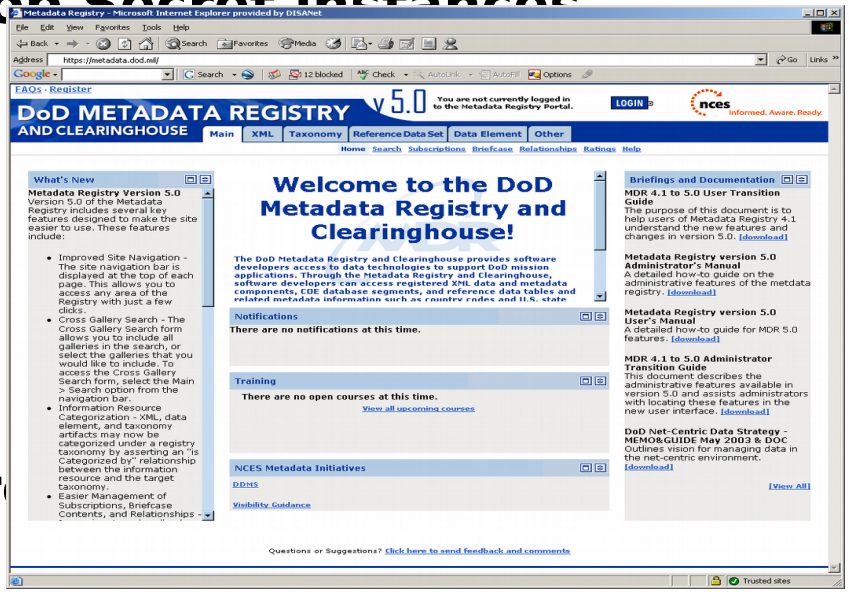
and…

- Air Force: "Take out a three-year lease with option to buy."

Register Terms, Definitions, & Relationships

DoD Metadata Registry (MDR) and Clearinghouse

- **"One Stop" Publish, Subscribe and Manage capabilities for Reusable *Structural* Metadata Components**
  - **104K XML items (schema, stylesheet etc) registered as of Feb 2006**
  - **Includes translation logic for mediation & taxonomies**
  - **6500 Registered Users from DoD, IC, DHS, NASA and more**
  - **Unclassified, Secret and Top Secret instances operating**
- **Run Time support available**
  - **Web Services**
  - **ebXML capabilities**
- **<u>User</u> feedback driven**
  - **Online user-to-developer**
  - **DoD Metadata Working Gr**
  - **V5 just released**

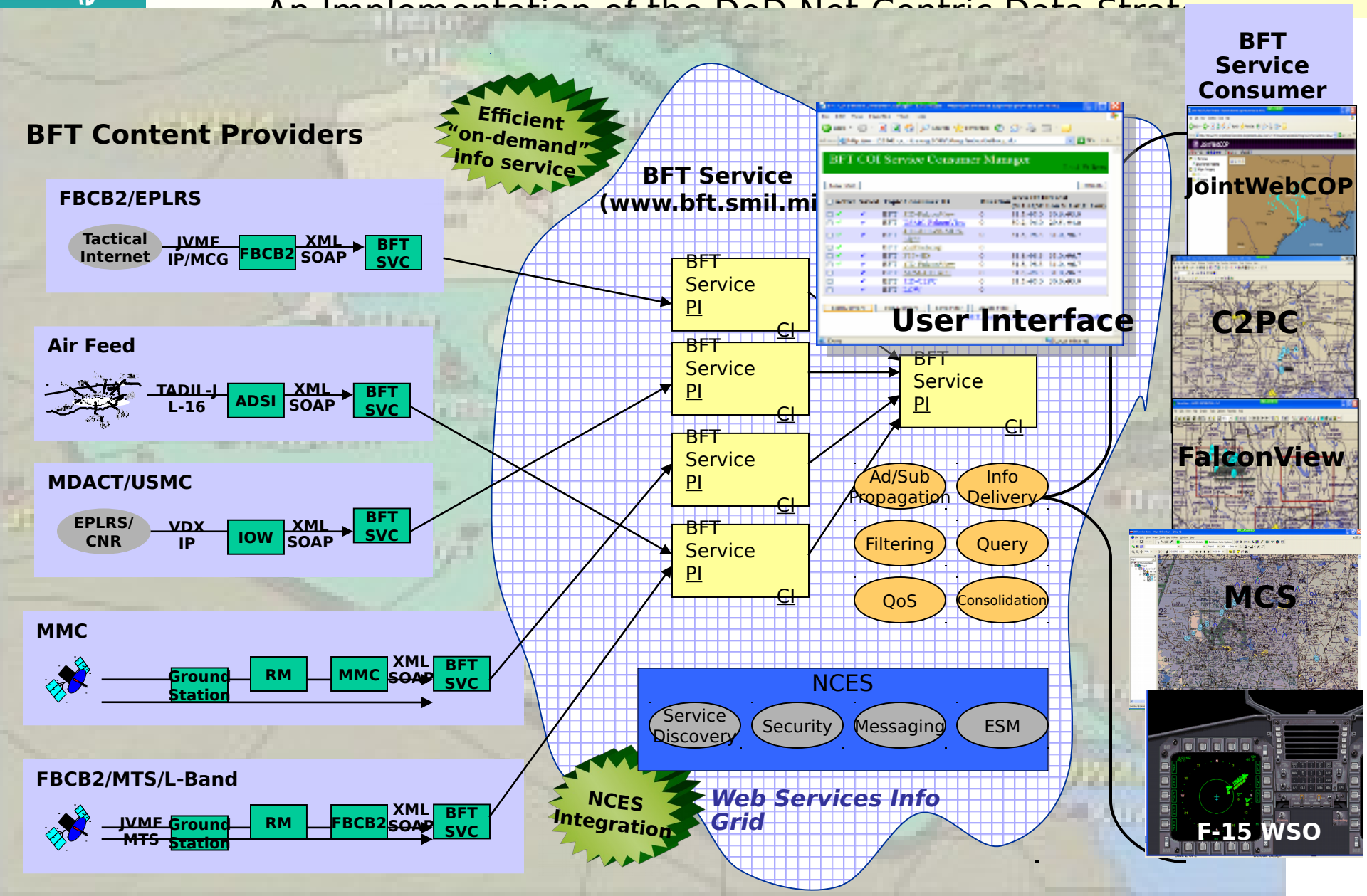

Metadata Registry - Microsoft Internet Explorer provided by DISANet
https://metadata.dod.mil/
FAQs · Register
DoD METADATA REGISTRY AND CLEARINGHOUSE
v 5.0
You are not currently logged in to the Metadata Registry Portal.
LOGIN
nces
Informed. Aware. Ready
Main
XML
Taxonomy
Reference Data Set
Data Element
Other
Home Search Subscriptions Briefcase Relationships Ratings Help
What's New
Metadata Registry Version 5.0
Version 5.0 of the Metadata Registry includes several key features designed to make the site easier to use. These features include:
Improved Site Navigation - The site navigation bar is displayed at the top of each page. This allows you to access any area of the Registry with just a few clicks.
Cross Gallery Search - The Cross Gallery Search form allows you to include all galleries in the search, or select the galleries that you would like to include. To access the Cross Gallery Search form, select the Main > Search option from the navigation bar.
Information Resource Categorization - XML, data element, and taxonomy artifacts may now be categorized under a registry taxonomy by asserting an "is Categorized by" relationship between the information resource and the target taxonomy.
Easier Management of Subscriptions, Briefcase Contents, and Relationships -
Welcome to the DoD Metadata Registry and Clearinghouse!
The DoD Metadata Registry and Clearinghouse provides software developers access to data technologies to support DoD mission applications. Through the Metadata Registry and Clearinghouse, software developers can access registered XML data and metadata components, COE database segments, and reference data tables and
Notifications
There are no notifications at this time.
Training
There are no open courses at this time.
View all upcoming courses
NCES Metadata Initiatives
DDMS
Visibility Guidance
Briefings and Documentation
MDR 4.1 to 5.0 User Transition Guide
The purpose of this document is to help users of Metadata Registry 4.1 understand the new features and changes in version 5.0. [download]
Metadata Registry version 5.0 Administrator's Manual
A detailed how-to guide on the administrative features of the metdata registry. [download]
Metadata Registry version 5.0 User's Manual
A detailed how-to guide for MDR 5.0 features. [download]
MDR 4.1 to 5.0 Administrator Transition Guide
This document describes the administrative features available in version 5.0 and assists administrators with locating these features in the new user interface. [download]
DoD Net-Centric Data Strategy - MEMO&GUIDE May 2003 & DOC
Outlines vision for managing data in the net-centric environment. [download]
[View All]
Questions or Suggestions? Click here to send feedback and comments
Trusted sites

http://metadata.dod.mil

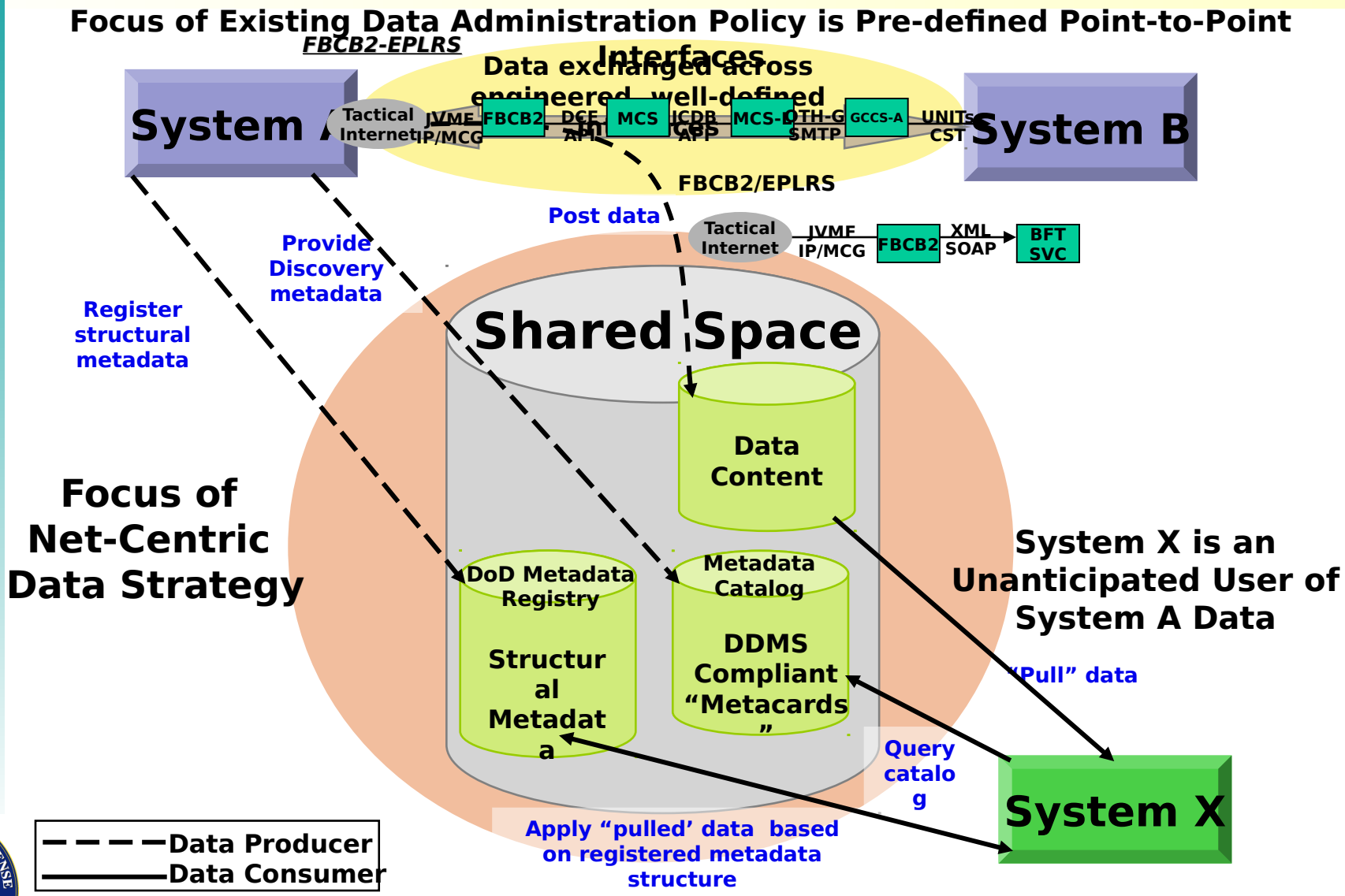
Blue Force Tracking (BFT) COI Service

An Implementation of the DoD Net Centric Data Strat

A Net-Ce
NII/CIO



Net-Centric Data Strategy Enables Unanticipated Users



What is a COI?

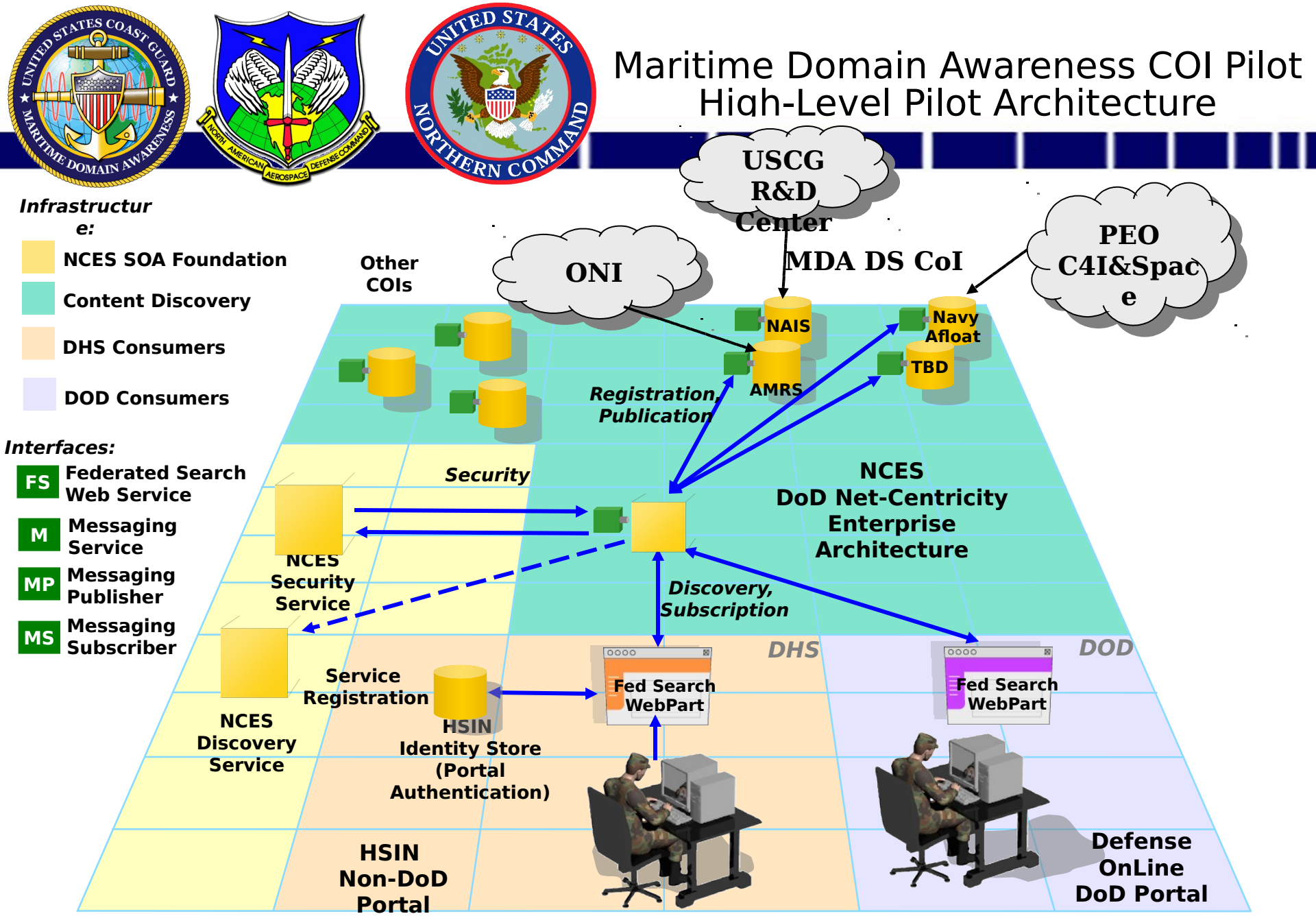
- **A community formed to solve a data-sharing problem**
  - **Are described in the DoD Net-Centric Data Strategy**

- What does a COI do?
  - Work together to resolve the issues that affect their community
  - Establish community standards on how information will be exchanged within the COI

- What can't a COI do?
  - COIs do not operate systems or provide services
  - COIs do not submit POMs
  - COIs do not direct changes to ICDs, ORDs, CDDs, or CPDs

However, *members* of COIs ***do!***

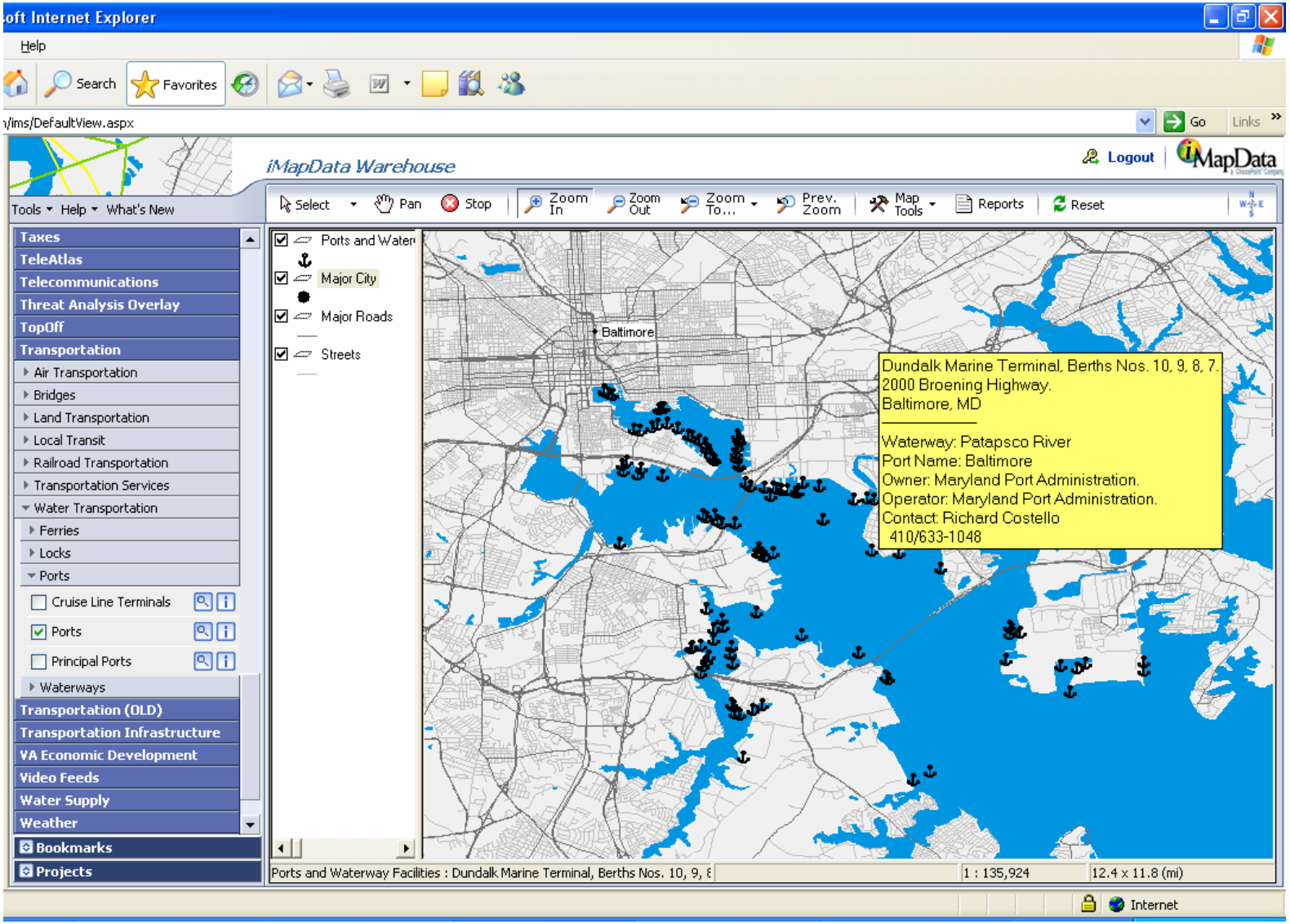
Maritime Domain Awareness COI Pilot High-Level Pilot Architecture



DoD/DHS Cooperation – Unclassified AIS Information

iMapData – DHS User Defined Operating Picture (UDOP) Candidate

Only for HSIN Customers



Reference Links

The DoD Net-Centric Data Strategy
http://www.defenselink.mil/nii/org/cio/doc/Net-Centric-Data-Strategy-2003-05-092.pdf

Data Sharing in a Net-Centric DoD, DODD 8320.2
http://www.dtic.mil/whs/directives/corres/html/83202.htm

Guidance for Implementing Net-Centric Data Sharing, DOD 8320.2-G
http://www.dtic.mil/whs/directives/corres/html/832002g.htm

DoD Discovery Metadata Specification (DDMS)
http://metadata.DoD.mil/

DDMS Schema information
http://diides.ncr.disa.mil/mdreg/user/DDMS.cfm

COI Resources
http://www.dod.mil/nii/coi/